

### ABSTRACT OF THE DISCLOSURE

A quadrature modulator compensation system for compensating the transmission of a source signal includes a transmitter which uses a transmitter input signal to generate a transmitter output. Calibration circuitry generates at least one of a phase error estimate of the transmitter, a gain error estimate of the transmitter, and a dc offset estimate. Predistortion circuitry receives the estimates and the source signal as inputs and provides the transmitter input signal as a function of the estimates.